

NAVY YARDS—GREAT BARN ISLAND, PERTH AMBOY, &c.

LETTER

FROM

THE SECRETARY OF THE NAVY,

*Upon the subject of establishing navy yards at Great Barn island,  
Perth Amboy, and Jersey City, &c.*

DECEMBER 12, 1836.

Referred to the Committee on Naval Affairs.

NAVY DEPARTMENT,  
December 10, 1836.

SIR: In obedience to the resolution of the House of Representatives of the 3d of June last, directing the Secretary of the Navy "to ascertain, as far as practicable, and to report to the House, during the first week of the present session, the practicability of establishing a navy yard at or near Great Barn island, in the straits called the East river, which connects Long Island sound with New York bay; also at Perth Amboy and Jersey City, in the State of New Jersey; the comparative advantages and disadvantages of those sites, and the site of the navy yard at the Wallabout, on Long island, for the purposes of a navy yard; the expense of erecting the works recommended by Col. Baldwin, at the Wallabout, according to the plan prescribed by that engineer; the expense of a dry dock at each of the above positions; the expense of purchasing the necessary quantity of land, and erecting buildings of equal convenience with those now owned by the United States at the Wallabout; and the probable amount for which the lands, buildings, and other property of the United States at the Wallabout, might be disposed of, if offered for sale," I employed Loammi Baldwin, Esq., the distinguished engineer, under whose superintendence the dry docks at Boston and Norfolk were constructed, to make the examinations of the subjects embraced in the resolution.

These examinations have been made by Mr. Baldwin and his associates, with great labor and care. And I beg leave to submit a copy of his report to this department, of the 17th of October last, together with the schedule, plans, and drawings referred to in the same, as containing the information called for by the resolution.

I have the honor to be, sir, with great respect,

Your obedient servant,

MAHLON DICKERSON.

To the Honorable the SPEAKER,  
of the House of Representatives.

*Schedule of papers accompanying the report of the Secretary of the Navy of 10th December, 1836, to the House of Representatives, in answer to the resolution of the House of 3d June, 1836, respecting a site for navy yard near New York.*

1. A copy of Col. Baldwin's report, of 17th October, to Secretary of the Navy.
2. Plan of soundings, &c. Wallabout bay, for a dry dock, navy yard, Brooklyn.
3. Plan of survey and soundings at Jersey City.
4. Plan of survey and soundings at Perth Amboy.
5. Plan of survey and soundings at Great Barn island.
6. Statement of amount expended for United States' yard in Brooklyn.

CHARLESTOWN, October 17, 1836.

SIR: I had the honor to receive your letter of June 16, in due course of mail, enclosing a resolve of the House of Representatives in Congress, passed June 3, 1836, and, agreeably to your request, I now present the result of the survey and examination pursuant thereto.

The resolve is in the following words: "*Resolved*, That the Secretary of the Navy be directed to ascertain, as far as practicable, and to report to this House, during the first week of the next session, the practicability of establishing a navy yard at or near Great Barn island, in the straits called the East river, which connects Long Island sound with New York bay; also, at Perth Amboy and Jersey City, in the State of New Jersey; the comparative advantages and disadvantages of these sites, and the site of the Wallabout, on Long island, for the purposes of a navy yard; the expense of erecting the works recommended by Col. Baldwin, at the Wallabout, according to the plans presented by that engineer; the expense of a dry dock at each of the above positions; the expense of purchasing the necessary quantity of land, and erecting buildings of equal convenience with those now owned by the United States, at the Wallabout; and the probable amount for which the lands, buildings, and other property of the United States, at the Wallabout, might be disposed of, if offered for sale."

Immediately after I had the pleasure of meeting you in New York, on the 13th of July, and conferring upon the several duties contemplated by the resolve, I proceeded, after having obtained the necessary assistants, to sound the water and survey the ground at Great Barn island, at Jersey City, and at Perth Amboy.

#### GREAT BARN ISLAND.

1. Great Barn island contains about 230 acres of pretty high, uneven ground, having many loose stones and boulders, with a ledge on the side next to Hellgate, at the south angle of the island, in Little Hellgate channel, and probably under the whole island. Four roads or avenues are laid out upon it, nearly at right angles, one side of which is 1,725 feet long, and the other 1,425 feet, embracing a quadrangle of 56 acres. On these avenues are marked, at several places, the heights in feet above high-water level, by which you can form an opinion of the height and unevenness of the surface.

On the northeast side is the channel called Little Hellgate, separating it from Little Barn island, about 400 feet wide in the narrowest place, with the soundings laid down, in the plan No. 1, in feet, corrected from the level

of high water, and the tide here and round the island is about 5 feet. This channel is full of rocks or ledges, so that nothing but boats and small craft can safely pass, and with great difficulty, owing to the strong current which always prevails in one direction or the other, except at the moment of turn of tides.

Harlaem river passes down on the northwest side, with water sufficiently deep for ships of war, from the mouth of the river to the head of East river, at Graves's point. There is from 26 to 30 feet of water here, at low tides, at most places more than 300 feet wide, and in some a little less, with what appears good anchoring ground. From Graves's point, on the New York side, to Hallet's point, opposite, on Long island, nearly in the direction of a line of soundings run on the plan, may be called the head of East river. Vessels going from East river into the channel leading to Harlaem river, on the northwest side of the island, must pass up round Graves's point, by the deep bend, and Bernares point, as far as the mouth of Harlaem river, and perhaps up that river, for vessels drawing less than 20 feet, to lie at good anchorage. So, vessels of war, coming down from the sound, must pass through Hellgate, by Hallet's point, into the East river, and then up by Graves's point, into this anchorage, in the same manner.

The passage into it from the sound, through a part of Hellgate channel, and between Mill Rock and Barn island, is wide and deep enough; but the currents here are so great and irregular, that it appears to me too critical and dangerous, especially in light winds, for the approach to a navy yard.

Hellgate is on the southwest side of the island. It has a rocky bottom throughout, and some points of the ledge, as may be noticed on the plan, form dangerous reefs on both shores, parts of which are covered at high, and left bare at low water. Other points rise above high water, and form islands of rock. The currents here, in either direction, are very violent and irregular, and the time of tranquil water, at the change of tides, is but momentary, as well as in Little Hellgate channel, on the opposite side of the island. Nothing like a navy yard, dry dock, or other permanent structure, for the use of the navy, can be established in either channel.

On the southeast side of the island, the water from the sound to Hellgate is deep enough, but too narrow for the use of the navy; and though the current in both directions is strong, it is regular. But the opposite shore, on Long island, is too high and steep for the required purpose, having no marsh or low ground, nor shallow water, or flats, to dispose of the waste earth coming from the excavation incident to the convenient structures required at a navy yard. The same is the case on the Barn island side.

The only place where it is practicable to establish a navy yard, "at or near Great Barn island," is on the northwest side, either on the island or at the New York side, between Graves's point and the mouth of Harlaem river. On the island, the land rises high, with a narrow strip of marsh between it and the edge of the water, which deepens very suddenly, so that there is no room to fill up and dispose of the earth excavated, which would be desirable for the judicious establishment of the appropriate buildings.

On the New York side of the channel, from the lower point of the great bend up to the mouth of Harlaem river, is more favorable ground. This is principally marsh land, bounded by high ground and ledge between

Graves's point and the Third avenue; thence by the Third avenue, crossing the creek, to high land, which extends at the westerly end of this tract to Harlaem river. There is some upland within this boundary and the channel, extending from the avenue to Bernares point, on which is the pleasant residence called the Red House; but it is all low, and workmen were engaged in digging it about 4 or 8 feet deep, and carting the earth to fill up the marsh, and make it into saleable lots. On this whole surface there is no convenient upland from which to fill the marshes and creeks, or the wharves necessary to extend to requisite depths for ships of war, or for landing; and all constructions for navy purposes must be founded on piles. Towards Harlaem river a better site may be found, but the depth of water is wanting. It is evident, in examining the plan, that in the line of soundings at the mouth of the river, there is here scarcely room for a ship of the line to pass, and from this place down to Bernares point the channel for a 74 is only about 200 feet wide, the narrowest place being against the mouth of the creek. Thence there is sufficient water to Graves's point, against which there is from 100 to 110 feet depth.

In 1827, an act passed the Legislature of New York, entitled "An act to incorporate Peter Embury and others by the name of the 'Harlaem River Land Company,' to open a navigable canal through Spitenduyvel creek and Harlaem river, from the Hudson to the East river." On the 13th of May, 1836, an act to amend and extend the foregoing was passed, and the surveys preparatory to the execution of the work were in hand when I was engaged there. This canal might be of service, if a navy yard be established here, in supplying lumber, &c. from the North river. A considerable quantity of ice in Harlaem river, which has its outlet almost entirely through this channel, would produce serious inconvenience to ships lying here, when it breaks up in the spring. About twenty years ago a bridge was built from New York to the island, nearly in the direction from A to B, which was carried away by the ice two or three years subsequently, and the remains of one of the piers are still found in the channel.

The strong currents in opposite directions, which are always found here both in flood and ebb tides, are great impediments to boats passing in any of the waters round the island, more especially in Hellgate, which I experienced in several instances during the examination. My assistants were greatly impeded by them, and the process of taking accurate soundings, as they are run on the plan, was very slow. They were delayed several days in this part of the labor, for the only period when they could be taken at all was for a short time at or near the turn of tide.

#### JERSEY CITY.

The site for a navy yard at Jersey City is preferable to the one at or near Great Barn island, but many natural difficulties are found here. The line upon the plan No. 2, from A, at the end of the wharf on a continuation of Hudson street, to B, at Hoboken, is 6,520 feet, or more than a mile. The soundings, as marked on the plan, are taken, as before, in feet, corrected from high water, and the average rising of the tide is 5 feet. All the space within this line and the shore is shallow, there not being more than 5 or 6 feet water at full sea over nearly the whole of it. The bottom is mud, and, as I was informed by an intelligent gentleman at Jersey City, rock is found in some places at 30 or 40 feet depth. You will perceive that this

line passes over pretty deep water at the south end, and so on about half way, to a little beyond the line of the old wharf, which we examined when there last year. The wharf, about 980 feet long, was left in an unfinished state several years ago, and has so remained ever since; and at the end there is 8 feet of water at low tide; and 300 feet from the line, towards Hoboken: the line passes over water too shallow for any purpose of a navy yard. From this line the water gradually deepens eastward to the channel of Hudson river, which is near New York city, so that wharves must be necessary for a length of 1,200 feet from it, for the convenient approach of the largest ships. This distance is marked on the plan at several places where the soundings were made. From various points of the line westward to the shore, the distances are marked also in the same manner, some of which are above 2,000, others only 1,200 or 1,300 feet. The exposure to the north and northeast winds, and to the floating ice in the Hudson, where it is a mile wide at least, are, as appears to me, sufficient objections to this situation.

Ice must be expected in almost any position which may be chosen for a navy yard in this neighborhood; but the great width of the river, and the long reach above open to the northerly blasts, are difficulties which may be obviated in other places not mentioned or contemplated in the resolve. The shallow cove or bay within the aforesaid line may, most of it, be filled, and good firm ground obtained to a sufficient extent for the use of the navy; but all the buildings in convenient positions must be founded on piles; and it has occurred to me, that, to secure the establishment in the most protected situation, will be to place it under cover of the high land of Hoboken. About 80 or 100 acres, at the least, should be provided, of good land, or easily formed to build upon. This area of only 80 acres will be equal to a square having 1,866 feet on a side, and such a site is shown by the dotted line adjoining the hard land and marsh under Hoboken, rather than at the south end next to Jersey City, which will be much more exposed. At the south of the navy yard established as above indicated, the flats may be excavated by dredging machines, and a wet basin formed, from which an entrance to dry docks placed in the southerly part of the yard may be effected. I was informed by several gentlemen in Jersey City, that the ice was driven by the northwest winds over to the New York side, so that they often experienced little difficulty on their side of the river. But the north and northeast winds must of course produce a contrary effect. The great objection is, to place a navy yard safely at the mouth of any, especially a large, stream, where the ice must always come to the sea after much friction backwards and forwards by the alternation of tides. This is remarkably the case here, and at the mouth of Harlaem river, near Great Barn island. There is but one course for masses of floating ice of both rivers, which is to the sea in one direction, occasionally checked or driven back by the flood tides. On the other hand, the floating ice at the Wallabout sometimes goes out to sea through the sound, in flood tides; at others, is driven out at ebb through New York bay; and the natural consequence is, that the ice at the Wallabout is much sooner driven away than at Jersey City or at Great Barn island.

PERTH AMBOY.

There is good ground here on the south side of the town, and water enough for the convenient establishment of a navy yard, as you will per-



ceive by the soundings in plan No. 3, which, like the others, are corrected from high water; but, unfortunately, there is no access to it for ships of war, either through Staten Island sound from New York bay, or by the north end of the island from Sandy Hook. Upon examining the channel in the sound, I find a broad, shallow place, extending from the island towards Jersey shore, nearly in a direction to the northerly side of the entrance to Newark bay, where there was only five or six feet; and towards Jersey shore, no more than ten feet water at the deepest place, and that depth only for a narrow channel.

Lieut. Gedney, now engaged on the coast survey, was employed in the neighborhood of New York while I was there upon this duty. He confirmed this fact; and steamboats are obliged to take a direction close upon the Jersey side, to avoid the shoal extending from the island; and I have known them go aground, as they often do, at this place. The passage from New York bay, for any vessel of war, to Perth Amboy, through Staten Island sound, is therefore impracticable. The other passage to Perth Amboy from Sandy Hook, through Raritan bay, round the northerly end of Staten island, is very wide, but too shallow. Here there is but about fourteen feet water at low tide; the tide being, as usual, about three feet, as I take the depth from the soundings furnished through the kindness of Lieut. Gedney. These circumstances render it useless to say any thing further as to Perth Amboy for a navy yard.

2. The comparative advantages and disadvantages of Great Barn island and Jersey City as sites for a navy yard, compared with that already established at the Wallabout, I think are chiefly the following:

*First.* The best building ground "at or near Great Barn island" is upon the New York side; and at Jersey City on the marsh or muddy flats; where all constructions at both places will require piling, the depth of which will probably vary according to the precise position that may be chosen. For the reasons given in my report to you last year, on the 13th of June, I have no doubt that it is quite feasible to construct a dry dock at the Wallabout, or at the other two places; the difficulties, however, will depend upon the nature of the ground and the bottom, which I did not examine at Barn island or Jersey City with the requisite details I had before done at the Wallabout.

*Second.* At all the places, a great deal of earth will be required to make a convenient yard for the public service. At Barn island, there is little upland earth attainable for the purpose, but there is more at Jersey City; and at the Wallabout there is a great quantity within the enclosure on the high land where the commandant's house stands; enough, probably, for completing that yard on the plan I proposed last year. But in all these cases, earth may be brought in boats from a distance.

*Third.* The advantage of approaching either of the three sides is in favor of the Wallabout, where there is a strong but regular tide, with deep water quite to the present quays or wharf, to which vessels of any size may come either up or down the East river, and in any state of the tide. The access to the wharves at a navy yard on or near Great Barn island will be only in one direction, whatever may be the tide, and that is through the critical pass from the East river, in a violent and distracted current, close by dangerous rocks, to which ships, in light or variable winds, will be exposed at all times, especially in ebb tides. Exposure to ice, too, will be greater here from the Harlaem river than at the Wallabout; and at Jersey City, in addi-

tion to the trouble of ice, the deep water is far out from the shore, requiring long wharves to convenient births for seventy-fours and frigates, which are not necessary at the Wallabout. An easy access for all vessels is an indispensable requisite for a navy yard; and I consider that of Barn island dangerous; that of Jersey City inconvenient and troublesome; whilst that of the Wallabout is at all times open and convenient, in either direction, while it is much less embarrassed with ice than either of the others.

*Fourth.* The works recommended at the Wallabout in my report last year were, the quay-walls to enclose the mud island called the Wallabout, the wet basin, and the dry dock. The quay-walls on two sides were to be on the boundary line of the yard. On that side next the main channel of East river, and towards New York, from E to B on the plan of May, 1835, the wall was two thousand feet long, in water generally twenty feet deep at low tide; and on the other side, which is the east boundary, the wall was to be from B to C sixteen hundred feet in the Wallabout channel, where there is deep water, most of the distance, close along the quay-wall. On the third side, the wall was to form, part of the way, a curved line upon a radius of seven hundred feet. Here it was to form one side of the curved wet basin, and on the other to be filled in with earth, and to be raised to a convenient height above the flats for yard room. Almost all the wet basin to be made of the Wallabout channel is already deep, and would require little expense, by dredging, to make it sufficiently so for the largest ships to lie in without grounding. From this basin, an opening from the converse side was to be made into the dry dock. Hence all these works, in my opinion, taking into consideration their extensive usefulness, can be made at less expense than similar works at Barn island or Jersey City.

*Fifth.* As both the proposed new sites are on the main land, and the navy yard at Wallabout is on Long island, it may be supposed that the two former may have the advantage over the latter, in regard to security in time of war; but this circumstance is of little consequence.

Government is now constructing strong and expensive fortifications at the Narrows, on Sandy Hook, against a naval attack from the sea; and at Throg's point, against an enemy from the sound; and the city of New York, as well as all places within these points, will be fully protected. In case of war, troops in any number can be encamped on Long island, in almost any convenient position, as a general rendezvous during the war, or for a temporary defence against this danger. Besides, the communication across East river by steamboats, &c. is so very easy from the city of New York, that it would seem unnecessary and unwise to erect permanent fortifications, when a moveable force, to any extent, can be promptly thrown upon the island, if one be not previously stationed there. Indeed, my impression is, that, under the defences of Throg's point and the Narrows, the city of Brooklyn and the Wallabout are quite as safe as New York.

3. The cost of a dry dock, I have learned from experience, is wholly out of your reach by the ordinary calculation in detail. They are so different from ordinary structures, and so new in our country, that it would be unsafe for Government to confide in an estimate made with the greatest care. The closest calculations can never be so safe for your present purpose, as that of taking the mean cost of the two docks already built at Boston and Norfolk.

|   |   |                |
|---|---|----------------|
| The dry dock at Boston, including all expenses, cost  | - | \$677,089 78   |
| The dry dock at Norfolk, including all expenses, cost | - | 962,459 19     |
| Total   | - | \$1,639,548 97 |
| Mean  | - | \$819,774 48   |

Both docks were founded on piles, at each of which more than four thousand were used in the foundation, and the same number would probably be required for a dock of the same size at each of these sites. The character of the excavation would undoubtedly vary in all of them, from that of either of the two already constructed ; what that difference would be, it is impossible to calculate, though it would probably be small. The difference of \$285,369 41, arose principally from the stone work, which cost much more at Norfolk than at Boston. Hence you cannot assume safer data, that I or any other engineer, I believe, can furnish, than \$820,000, for the cost of a dry dock at either site in question.

4. I am unable to furnish a definite answer to the fifth subject of inquiry embraced in the resolution, which is, the expense of purchasing the necessary quantity of land, and erecting buildings of equal convenience with those now owned by the United States at the Wallabout. I made free inquiries upon this point, but I learned that the land was held at a high price at Barn island and at Jersey City, at each of which much would depend upon the location and the quantity desired. The nature of the ground for the purposes of a navy yard varies considerably, and the choice of a spot would have great influence upon the value ; and as I could not enter into particulars with any one, I thought it imprudent to excite expectation that would prejudice the question of price, should either site be eventually adopted. Besides, on my survey and examination, I found the circumstances of the ground and water to be such, that I thought it most probable the advantages of the old navy yard at the Wallabout were so apparent, that Government would abandon it for neither.

5. The amount already expended by the United States for land, building, and other works in the navy yard at the Wallabout, including the hospital, is \$936,030 60, according to a schedule furnished by the naval constructor, Mr. S. Hart, aided by the clerk in the commandant's office, a copy of which is herewith presented. This schedule embraces the gradual progress of constructions of every kind since the establishment of the navy yard here, and is the result of great labor and careful investigation of the official books, records, and papers.

The amount for which they could be disposed of, if offered for sale, could not be more than a tenth of what they originally cost ; and this must depend, in a great measure, upon the title which the United States have to the land within the limits of the yard, which is of two kinds. A part of the yard is upland, bought by the United States, in which they have a fee ; and the other, much the largest part, they hold by lease, or have a conditional grant from the city or State of New York, for the use of a navy yard only ; and when they cease to use it for this purpose, it reverts to the original lessors or grantors. It is a question, therefore, which I cannot decide, whether all the buildings and other improvements thereon do not go with the land, or revert also to the original lessors or grantors, and the Government, of course, do not lose all they have expended. This portion



is east of the dotted line drawn on the plan of 1835 ; and the part to which the United States have an undoubted fee is west of it. It is not pretended that this line is accurately the boundary between these two kinds of estates, for it would be very difficult to fix such a line now, after the character of the ground has been so materially changed since the establishment was commenced ; but it is nearly correct, and sufficient to show the buildings which are the absolute property of the Government, as separated from those on land to which their title may be doubtful.

The land where the hospital is situated was bought by the Government, separated from, but near to, that of the navy yard. This will sell, with the buildings and improvements, for as much, and probably more than they have cost.

The buildings on their ground, within the navy yard, as nearly as I can ascertain from the accompanying schedule, and the cost of land and buildings, are as follows :

|  |   |   |              |
|--|---|---|--------------|
| 1. Original cost of navy yard ground       | - | - | \$40,000 00  |
| 2. The commandant's house                  | - | - | 17,146 87    |
| 3. Marine barracks and quarters            | - | - | 25,000 00    |
| 4. Cost of old brick store, 200 by 40 feet | - | - | 20,000 00    |
|  |   |   | <hr/>        |
|  |   |   | \$102,146 87 |

*Hospital.*

|   |   |              |
|---|---|--------------|
| 5. Original cost of ground  | - | \$7,500 00   |
| 6. Hospital, &c.  | - | 46,767 25    |
| 7. Appropriated for walls, docks, &c., in progress of expenditure | - | 16,500 00    |
|   |   | <hr/>        |
|   |   | 70,767 25    |
|   |   | <hr/>        |
|   |   | \$172,914 12 |

|  |   |              |
|--|---|--------------|
| The whole amount expended  | - | \$936,030 60 |
| Of which they would reserve all expended in the hospital           | - | \$70,767 25  |
| And a quarter of expenditures on their own ground in the navy yard | - | 25,536 72    |
|  |   | <hr/>        |
|  |   | 96,303 97    |

Balance lost to the United States, probably, by defect of title \$839,726 63

All which is respectfully submitted by your obedient servant,  
L. BALDWIN.

The Hon. MAHLON DICKERSON,  
*Secretary of the Navy.*

*STATEMENT showing the amount expended for the United States navy yard in Brooklyn.*

|           |   |   |            |              |
|-----------|---|---|------------|--------------|
| 1         | Original cost of navy yard ground   | - | -          | \$40,000 00  |
| 2         | Commandant's house  | - | -          | 17,146 87    |
| 3         | Marine barracks and quarters  | - | -          | 25,000 00    |
| 4         | Cost of old brick store, 200 by 40 feet   | - | -          | 20,000 00    |
|           | Incidental expenses in yard buildings, timber sheds, rail loft, stalls and sheds, &c.   | - | -          | 64,787 77    |
|           | Building docks, launching slips, &c.  | - | -          | 55,024 21    |
|           | Gun blocks  | - | -          | 40,000 00    |
|           | Filling in yard   | - | -          | 42,187 69    |
|           | Building and completing ship house No. 1, 260 by 140 feet   | - | -          | 67,469 43    |
|           | Six brick storehouses, 180 by 40 feet   | - | -          | 19,251 68    |
|           | Ship house No. 2, 260 by 120 feet   | - | -          | 35,464 50    |
|           | Blacksmith's shop, 103 by 53 feet   | - | -          | 7,500 00     |
|           | Repairing gun blocks  | - | -          | 3,836 44     |
|           | Boat house, brick, 200 by 40 feet   | - | -          | 30,993 84    |
|           | Gun-carriage shop, brick, 103 by 53 feet  | - | -          |              |
|           | Timber shed No. 1, brick, 200 by 60 feet  | - | -          | 2,816 88     |
|           | Two moving blocks, each 40 by 40 feet   | - | -          |              |
|           | One timber shed, No. 2, brick, 300 by 60 feet   | - | -          | 89,734 89    |
|           | One timber shed, No. 3, brick, 300 by 60 feet   | - | -          |              |
|           | One timber shed, No. 4, brick, 300 by 60 feet   | - | -          |              |
|           | One timber shed, No. 5, brick, 300 by 60 feet   | - | -          | 30,720 34    |
|           | One mast house, brick, 250 by 80 feet   | - | -          |              |
|           | One barrack for ordinary, brick, 35 by 40 feet  | - | -          | 2,331 09     |
|           | Three brick storehouses, 3 stories high, 66 by 48 feet  | - | -          | 8,642 29     |
|           | One cooper's shop, 103 by 53 feet   | - | -          | 6,883 81     |
|           | Brick wall on Navy street, 540 feet   | - | -          | 8,895 72     |
|           | Masting shears, muster office, flag-staff, belfry, and timber launching place   | - | -          | 7,470 17     |
|           | Stone wall on northwest boundary  | - | -          | 14,834 95    |
|           | Building and extending wharves, bridge wharves, &c.   | - | -          | 47,308 81    |
|           | Timber dock   | - | -          | 25,825 23    |
|           | Value of seamen's labor employed in navy yard from 1807 to 1836   | - | -          | 45,000 00    |
|           | Amount appropriated for 1836 for improvement, and balance on hand of former appropriations, which is in a rapid progress of expenditure | - | -          | 106,136 74   |
| HOSPITAL. |   |   |            | \$865,263 35 |
| 5         | Original cost of ground   | - | \$7,500 00 |              |
| 6         | Hospital building, &c.  | - | 46,767 25  |              |
| 7         | Amount appropriated for building walls, dock, &c., in progress of expenditure   | - | 16,500 00  |              |
|           |   |   |            | 70,767 25    |
|           |   |   |            | \$936,030 60 |

August, 1836.